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# An analysis of psychological trauma interventions

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**Abstract**

The trauma response to extreme life events and/or the posttraumatic stress disorder (PTSD) were originally conceptualized as normal responses to overwhelming situations. In the last years there is increasing acceptance of the idea that exposure to a traumatic situation/stimulus may not be enough to explain the development of PTSD and the individual vulnerability factors plays an important role in understanding this condition.
The study examines different approaches on psychological trauma (especially PTSD) in the literature in order to find more effective directions in trauma treatment.



*Keywords:* trauma; PTSD; psychological intervention.

## 1. Introduction

Today we treat psychological trauma using different strategies and specific methods. Sometimes the psychologist/psychotherapist has an integrative vision, taking into account, for example, the neuropsychological functions or biological mechanisms involved in trauma. Too often yet the therapeutic vision is narrowed by a unidirectional approach (the specialist has little knowledge about neuropsychological correlates, the cultural ones, etc.).

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The behaviors we recognize as defense mechanisms when we analyze the traumatized person define the symptoms we consider as related to trauma. Early conceptions about psychological trauma were focused on physical signs of psychological distress, while modern approaches are focused on mental symptoms. However, traumatic experiences evoke psychobiological reactions. From an evolutionary perspective psycho-physiological responses to traumatic events have evolved to ensure survival (Baldwin, 2013). Primary mechanisms operate in survival conditions with intermittent cortical adjustments. The operation of these mechanisms provides a basis for understanding the co-morbidities and symptoms related to trauma. Different early approaches mention that the mammalian brain evolved by the emergence of new neural circuits, increasingly complex, in order to allow the adjustment of the reflexes in paleocortex regions influenced by the modern world (MacLean, 1990).

The perspective of trauma in relation to development should be also considered. We know that the roots of stress reactions are innate, but they are modified through learning.

Another way to integrate the analysis of psychological trauma is the cultural one. The ability to treat psychological trauma is increased when the clinician integrates the information about cultural differences.

### *1.1. The concept*

We discuss about psychological trauma and its correlates, but maybe it would be useful to start from the very definition of this concept. According to dictionaries trauma is a violent emotion that alter an individual's personality by raising his sensitivity to other similar emotions, so that the person no longer reacts normal (DEX , 1998). Grand Larousse Dictionary of Psychology (2006) defines trauma as an event a person suffered and because of this he/she has a strong affective reaction, which produce an unbalance at the psychological level and often leads to psychotic or neurotic decompensation or various somatizations.

People's reactions to catastrophic events (real or perceived as catastrophic) were recorded from early times in pictures. Various representations of Sumerian or ancient Greek period illustrates such images (Boehnlein and Kinzie, 1992). Coping styles and emotions management play an important role in trauma victim lives (Anitei, Chraif, 2013). Closer to modern times we can find a text of a rail accident in 1865 which involved the famous writer Charles Dickens. The writer remained with psychological tensions just because of the lack of intervention of a mental health professional or psychologist.

A year after the accident Dickens confessed: "I have sudden attacks of terror sometimes even I just go by taxi, which is unreasonable but almost insurmountable". Dickens' daughter wrote: "My father's nerves have not been the same ever - I saw him often when traveling home from London, falling sharply in paroxysmal fear, trembling, clutching the arms of coach traveling, large drops of sweat appearing on his face and suffering by an agony of terror. I have never spoken to him, but I was touching lightly on hand from time to time. In any case, he had no apparent idea of our presence, he did not see for a while nothing out of that awful scene (which passed)" ( Beveridge, 1997). There were situations in which Dickens could not travel simply leaving the train after climbing and going home (Ackroyd, 1990).

After a traumatic situation such of rail accidents, doctors have found that victims who had not suffered even a mild injury physically still complained of a variety of symptoms. Thus were claimed headaches, insomnia, emotional problems and unexplained paralysis or numbness of the limbs. Therefore physicians were divided into two categories: those who believed that these symptoms made unnoticeable damage to the nervous system and those who argued that the nervous system was structurally intact and the symptoms had a nervous origin.

## 2. Method

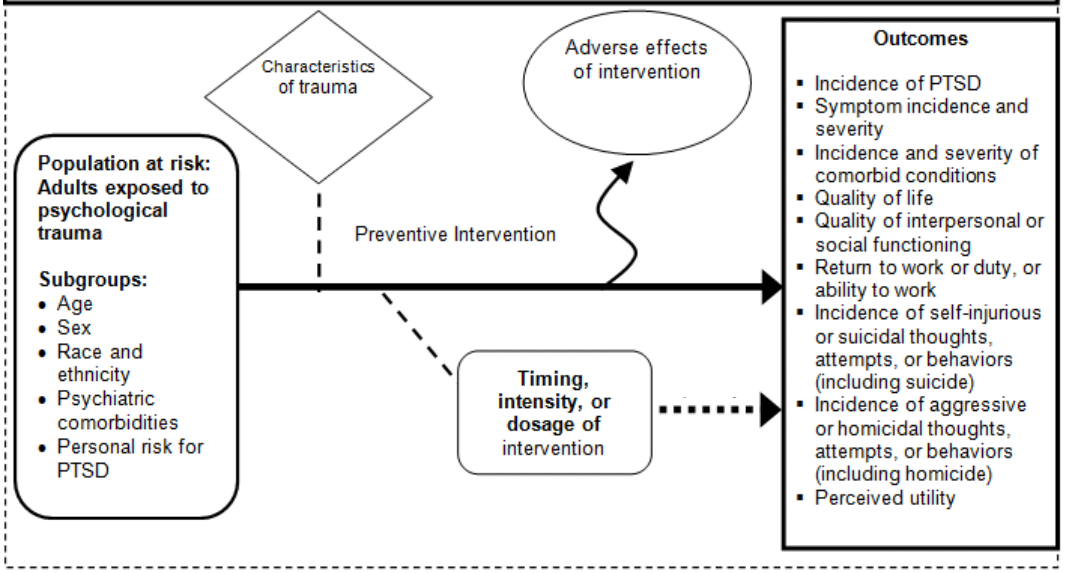
For this study the focus was on psychological interventions in trauma and especially in PTSD, which is probably the most common result after a traumatic event.

A bibliographic search was undertaken for a major analysis of interventions after traumatic situations. Studies were only considered if after-trauma symptoms were the main target of psychological intervention.

Other meta-analyses were consulted in order to make the research more specific. The consulted studies revealed that few types of therapy/intervention were used more often than others. According to this finding, CBT and EMDR were used in many cases. Also Stress management was a direction elected by some therapists.

According to the Agency for Healthcare Research and Quality, it has to be made a comparison between the psychological and pharmacological interventions to prevent of PTSD in adults (Fig. 1).

**Figure 1. Analytic framework for comparative effectiveness of interventions targeting the prevention of post-traumatic stress disorder in adults after exposure to psychological trauma**
**From AHRQ, 2012**




## 3. Prevalence of Traumatic Events

Resnick et al., in 1993(retrieved in AHRQ, 2012) found that lifetime exposure to any type of traumatic event was 69 % in a sample of 4,008 adult U.S. women. The National Comorbidity Survey indicated that 60 percent of men and 51 percent of women reported experiencing at least one traumatic event in their lifetimes (AHRQ, 2012).

Several studies have examined the prevalence of traumatic events among college students. These studies showed a lifetime prevalence ranging from 39 to 84 percent (AHRQ, 2012).

## 4. Psychological interventions (AHRQ, 2012)

There are several specific types of psychological interventions to prevent trauma / PTSD in adults, including: psychological debriefing interventions including critical incident stress debriefing (CISD) and Critical Incident Stress Management (CISM), psychological first aid (PFA), cognitive restructuring therapy, cognitive processing therapy, exposure-based therapies, coping skills therapy (e.g., stress inoculation therapy), psycho-education, eye movement desensitization and reprocessing (EMDR), cognitive-behavioral therapy (CBT). These therapies are intended to prevent the development of trauma-related symptoms, shortly after exposure to a traumatic event.

### *4.1. Psychological Debriefing, CISD, and CISM*

Psychological debriefing interventions try to raise the awareness of victims on normal reactions to trauma and to encourage them to share their experiences and emotional responses to the event.

Usually CISD is a facilitator-led group process conducted soon after a traumatic event (36-72 hours) with individuals considered to be under stress from trauma exposure. When structured, the process usually (but not

always) consists of seven steps: Introduction; Fact Phase; Thought Phase; Reaction Phase; Symptom Phase; Teaching Phase; and Re-entry Phase.

CISD is a secondary prevention intervention originally developed for use with individuals indirectly exposed to traumatic events and is administered by a team composed of individuals familiar with the organization and mental health professionals. In order to help the victims to normalize their stress responses (and to talk about their feelings, experiences and behaviors) the facilitators present coping skills and offers additional resources. CISD approach is flexible, having a relaxed structure.

Even CISD purpose was not to prevent PTSD, it has been applied directly to victims of trauma. Some studies suggested this intervention might be ineffective for that objective and actually may have harmful effects (Litz et al., 2002; Mitchell et al., 1999; van Emmerick et al., 2002). Rose et al. (2002) made an update of a previous 1997 Cochrane Review assessed the effectiveness of single-session psychological debriefing for the management of psychological distress after trauma and the prevention of PTSD.

In time CISD has expanded and transformed into CISM, a multi-level and comprehensive crisis intervention program having the purpose of reducing the severity of traumatic stress. CISM contains more methods and tools such as pre-incident training for persons having high-risk jobs, one-on-one individual crisis support, demobilizing (e.g., information about coping and stress to large groups of emergency workers), and defusing (small-group interventions during which participants are asked to explore and discuss the incident and their emotional reactions to it). CISM aims also family members of the emergency personnel also, those being debriefed. In addition there are referral procedures for sending people for psychological services (AHRQ, 2012).

### *4.2. Psychological first aid (PFA)*

PFA consists of a set of helping actions aimed at reducing first post-traumatic event distress and helping short- and long-term adaptive functioning. PFA is designed as an initial step of a complex trauma response, and it is constructed around eight core actions (according to AHRQ, 2012): (1) contact and engagement, (2) safety and comfort, (3) stabilization, (4) information gathering, (5) practical assistance, (6) connection with social supports, (7) information on coping support, and (8) linkage with collaborative services. PFA is intended for use by mental health professionals, counselors, and others who may provide immediate support for trauma survivors. It is considered that PFA has some major advantages: its high portability and the possibility of delivery anywhere recent trauma survivors can be found.

### *4.3. Cognitive-behavioral therapy (CBT)*

CBT uses principles of changing some inefficient beliefs and conditioning to treat disorders and includes components from both behavioral and cognitive therapy. Because CBT is used in many other disorders, for the traumatic events there are specific strategies (trauma-focused CBT) such as exposure, cognitive restructuring, and various coping skills either alone or in combination with one another. Most types of trauma-focused CBT are brief and involve weekly sessions lasting 60 to 90 minutes. It can be administered either as group or individual therapy.

Exposure-based therapy implies confrontation with traumatic stimuli, step by step and is continued until anxiety is reduced. The exposure is based on mental imagery from memory or introduced in scenes presented by the therapist (in vitro). In some cases exposure is in vivo, especially when the victim has a poor imagination and the therapist finds a very similar environment as the traumatic one. The aim is to dissolve the conditioned emotional response to traumatic stimuli by learning that nothing "bad" will happen during traumatic events, which eventually reduces or eliminates avoidance of feared situations and the affect associated with it. Exposure therapy is typically conducted for 8 to 12 weekly or biweekly sessions lasting 60 to 90 minutes.

Cognitive restructuring is based on the theory that the personal interpretation of the event, rather than the event itself, determines an individual's mood, based on Epictetus words and, later, Selye's approach. Its purpose is to facilitate the victim re-position towards the distorted thoughts and beliefs generated from a traumatic event and increase awareness of dysfunctional trauma-related thoughts and correct or replace those thoughts with more adaptive and/or rational cognitions. Cognitive restructuring generally takes place over 8 to 12 sessions of 60 to 90 minutes.

### *4.4. Eye movement desensitization and reprocessing (EMDR)*

EMDR combines the imaginary exposure with concomitant induction of rhythmic eye movements, which are believed to help reprogram brain function, so that the emotional impact of trauma can be diminished and eventually solved. In the process of EMDR, the client is instructed to recall a traumatic memory and then to work on the incompatibility between negative and positive cognitions. The therapist asks the client to contemplate memory while focusing on fast moving fingers clinicians. After 10 to 12 eye movements the clinician asks the client to assess the strength of memory and associated beliefs within the frame of positive cognition. While earlier versions of EMDR consisted of 1 to 3 sessions, current standards indicate 8 to 12 sessions of 90 minutes per week.

## 5. Conclusion

There is a rich literature on psychological interventions after traumatic events and few major contributions as meta-analyses on psychological interventions in PTSD. Even few specific therapies/interventions are considered more effective (based on evidence) such as CBT, CISD, EMDR, we still don't have the most effective tool for treating trauma (PTSD). We have to agree that we cannot take into consideration only the tool (therapy), but the person too. The therapist's personality is a major factor which could lead to success in trauma therapy, despite the "tool" used.

A future study on therapist' personality influence on the therapy outcome would be a proper direction in our attempt to identify the most effective method for the trauma treatment.

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